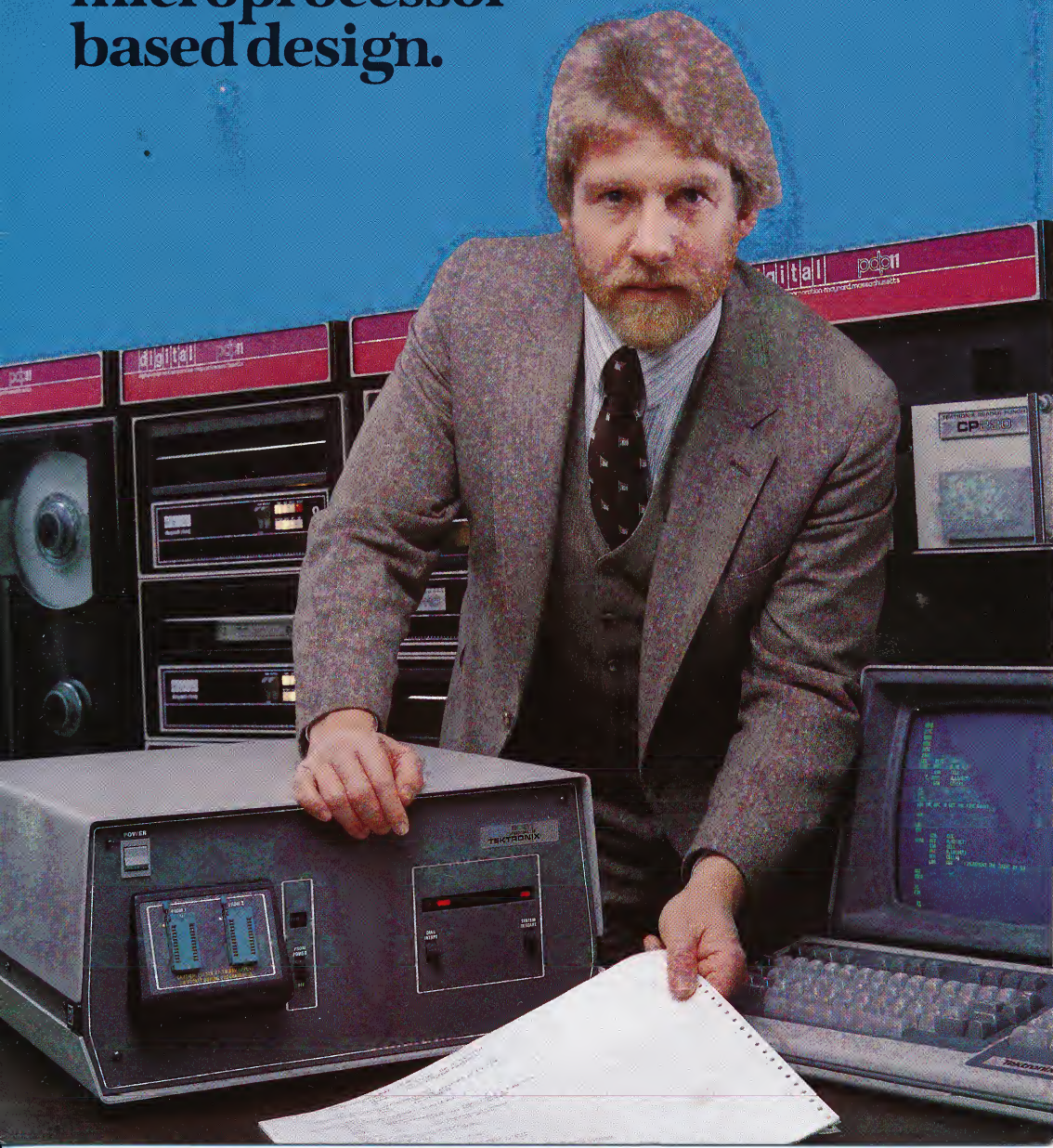


Tektronix
Microprocessor
Development Labs

Apr 80

Tektronix 8001 MDL
lets your computer become
the *complete* tool for
microprocessor-
based design.



Tektronix 8001 teams up with your computer to provide debugging capability during integration of software



The Tektronix 8001 MDL takes up the design effort where your computer normally stops. It provides in-circuit emulation for introducing computer-developed software into your prototype and includes a powerful set of debugging features to help test it along the way. Combining the 8001 with your software development computer forms a system that supports your *entire* design effort, from source coding to prototype completion.

Besides giving you a powerful design tool, an 8001 host system provides a cost-effective alternative to interfacing a stand alone system to a host computer for hardware/software integration. Stand alone systems include peripheral devices and development software you don't need because they are already part of your host computer. The 8001 is designed for host computers and includes no extra development software or peripherals such as floppy discs or printers. You can use a single crt terminal to control both your computer and the 8001. Also, several 8001s can be linked to a central host in a multi-station configuration taking full advantage of your computer's time-sharing capabilities.

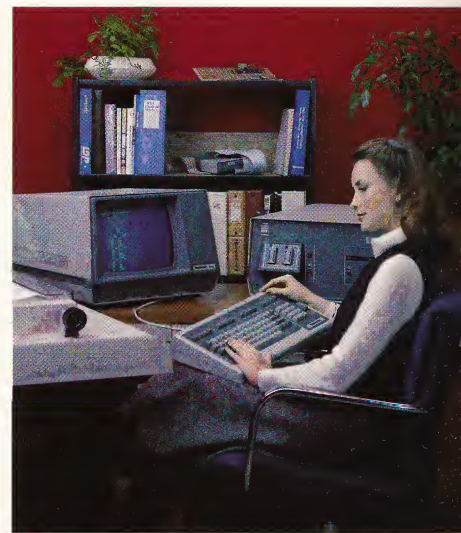
Interfacing is easy. The 8001 MDL is designed to interface easily with any host mainframe or minicomputer. All that's required is an RS-232C port that will accept commands from a standard crt terminal, and a software communications package readily available from a number of different vendors. No special wiring is required.

Use your computer's power to develop the initial code. Today's market includes a wide variety of powerful software editors and also fast cross-assemblers geared to the specific chip your design calls for.

Use the 8001 MDL for integration and debugging. After the host computer cross-assembler has converted your source code into object code, the resulting file can be downloaded to the 8001 to begin integration. Programs to convert the object file to the required data format and to execute the transfer can be easily developed by the user or purchased as part of a cross-assembler package.

Once in the 8001's program memory, the object code can be run in progressive emulation modes that gradually introduce the software into the prototype hardware.

Mode 0 exercises the downloaded code on an emulator processor and requires no hookup to prototype hardware. Modes 1 and 2 connect the 8001 to the prototype by means of a probe which plugs into the vacant microprocessor socket on the prototype board. Mode 1 turns over I/O and clock functions to the prototype and allows blocks of code to be selectively mapped over to the prototype memory. Mode 2 releases all code to the prototype memory but retains control of program execution.



ams up with your computer to provide full ility during integration of software and hardware.



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Once in the 8001's program memory, the object code can be run in 3 progressive emulation modes that gradually introduce the software into the prototype hardware.

Mode 0 exercises the downloaded code on an emulator processor and requires no hookup to prototype hardware. Modes 1 and 2 connect the 8001 to the prototype by means of a probe which plugs into the vacant microprocessor socket on the prototype board. Mode 1 turns over I/O and clock functions to the prototype and allows blocks of code to be selectively mapped over to the prototype memory. Mode 2 releases all code to the prototype memory but retains control of program execution.



In all three modes, the 8001's powerful debugging software allows you to set breakpoints, then trace and modify program flow, from disassembled mnemonics down to the individual register level. A Real Time Prototype Analyzer option is also available that gives you real time trace, events comparisons and sophisticated triggering capability. Because of this, the RTPA allows you to measure the elapsed time of interrupt service routines or subroutine execution.

8001 MDL supports more chips than anyone else in the market. Tektronix currently provides full support for 22 different chips, more than any other vendor.

And only Tektronix can offer you the reliability and service support that has helped make us a leader in electronic instrumentation.

Find out more today. Send us the enclosed reply card. We'll send you an application note on interfacing the 8001 MDL with a host computer, and also a Cross Development Software Resource Guide covering cross assemblers and intersystem communications packages. Or call your local Tektronix office for system configuration planning.

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**NOW YOUR COMPUTER CAN SUPPORT THE ENTIRE
MICROPROCESSOR-BASED DESIGN PROJECT!**

With the proper software, your mainframe or minicomputer gives you a powerful advantage in developing code for microprocessor-based products.

With the Tektronix 8001 Microprocessor Development Lab, you can extend that advantage all the way through hardware/software integration in a more cost effective way.

The 8001, an interactive workstation for microprocessor software/hardware integration, is designed to interface easily with mainframe or minicomputers. The hardware connections are simple, and the software is readily available.

When combined, the 8001 MDL and your computer form a single tool that gives you total design capability. Tektronix Microprocessor Development Labs currently support 22 different chips with full emulation, more than any other firm. With additional chip support constantly under way. All backed by Tektronix' worldwide service and support.

Contact us today by filling out the enclosed business reply card. You'll receive an application note describing the interface between the 8001 MDL and a host computer, and also a Cross Development Software Resource Guide. Or request an MDL Specialist to call for systems configuration planning.

Sincerely,

Ted Gary
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Product Line Manager
Logic Development Products